

# School Nursing: Not Just Band-Aids Any More!

**Lisa Broussard**

**ISSUES AND PURPOSE.** *School nursing has changed dramatically over the past 25 years. The complex social and physical needs of children require an expanded role with advanced knowledge and skills. The school nurse functions as health promoter, health educator, collaborator, and researcher. Issues related to advanced practice and policy development also affect school nursing practice.*

**CONCLUSIONS/PRACTICE IMPLICATIONS.** *The current emphasis on educational accountability and improvement of standardized test scores has mandated close examination of resource allocation. There is a need to appreciate an expanded role for the school nurse, as the provision of healthcare services in the school will afford children an increased capacity to learn, thus improving school performance.*

**Search terms:** *Health promotion, school health, school health nursing, school policies*

*Accepted for publication January 14, 2003.*

*Lisa Broussard, MN, RN, is a Pediatric Nursing Instructor, University of Louisiana at Lafayette, and a doctoral student, Louisiana State University Health Sciences Center, New Orleans, LA.*

**T**he role of the school nurse has undergone many changes over the past 25 years. With the enactment of Public Law 94-142 (1975, 1997), the Individuals with Disabilities Education Act, children with a wide array of developmental, physical, psychosocial, and behavioral conditions have been mainstreamed into the public school setting (Harvey, 2003; Turnbull, Turnbull, Wehmeyer, & Park, 2003). The high prevalence of chronic illness seen in this population has contributed to the growth and complexity of health needs, significantly expanding the role of the school nurse (Lowe & Miller, 1998). Hootman (2002) outlined some factors that have contributed to the increased demands for school nursing services, which include changing morbidities in youth, challenges to healthcare access, and correlating social and healthcare needs with changing populations.

The National Association of School Nurses (NASN), the American School Health Association (ASHA), the American Nurses Association (ANA), and the American Academy of Pediatrics (AAP) have each developed position statements on the role of the school nurse in providing school health services. This article includes an introduction to the phenomenon of school nursing and a summary of publications related to the role of the school nurse. Issues related to school nursing research and policy development will also be presented.

## **The Phenomenon of School Nursing**

The first school nurse began practicing in 1902. Under the guidance of Lillian Wald in New York, Lina Rogers began working in four New York City public schools that were experiencing a high absenteeism rate. After 1 month, the rate dropped by 90%, and medical doctors immediately recognized the value of school nursing services (Pollitt, 1994). School nurse programs were developed with

## School Nursing: Not Just Band-Aids Any More!

nurses treating minor contagious diseases, carrying out home visits to demonstrate treatments, and conducting student health education programs.

The 1950s and 1960s saw a dramatic increase in the number of school nurses in the United States. Practice shifted from a community-oriented model to a focus on screening and referral to private primary care providers. During the 1960s and 1970s, school nurses adopted a public health focus, once again providing home visits and classroom health teaching. School nurse practitioners began practicing in the early 1970s, resulting in an increase in the provision of primary care within some school settings (Ross, 1999). During the 1980s, the Robert Wood Johnson Foundation spearheaded the first national funding effort to expand school health services with a focus on adolescents. This initiative led to the development of school-based health centers in 48 states (Foch, 1995; Schlitt, Rickett, Montgomery, & Lear 1995). The trend toward more advanced practice nurses in the schools has continued, allowing issues such as mental health, immunizations, reproductive health, and HIV to be addressed.

At present, there are about 58,000 nurses working in school settings in the United States (Harvey, 2003) with approximately 75% holding baccalaureate degrees in nursing. The remaining 25% have either associate degrees in nursing or postbaccalaureate degrees (Bradley, 1997; Davies & Murray, 1997). The NASN recommends one school nurse for every 750 students in the general school population, a 1:225 ratio for mainstreamed students with special needs, and a 1:125 ratio for severely disabled students (Proctor, Lordi, & Zaiger, 1993). Only 14% of states have a specified nurse-to-student ratio requirement, while 38% have a recommendation roughly equivalent to the suggested ratio (Smallz, Maier, Al-lensworth, Farquhar, & Kann, 1995).

### The Role of the School Nurse

The roles of the school nurse are quite diverse. Following is a review of the nursing literature related to the school nurse as promoter of health, health educator, col-

laborator, and researcher (conductor and consumer). The role of the advanced practice school nurse is also discussed, as is the school nurse's role in influencing health policy.

### School Nurse as Health Promoter

According to the position statement by the NASN (1996), a primary function of the specialized school nurse is to "promote and protect the optimal health status of children." Dworak (2001) published the "ten commandments" of school nursing, identifying the first as a responsibility for promoting the health and well-being of all school children.

Many new school nurses begin their practice in the school setting after working in acute care (Harvey, 1998). These nurses usually display a strong focus on assessment and interventions for illness and injury, which is beneficial to the school setting. However, acute care usually operates from the medical model, where emphasis is placed on nurses' ability to intervene or respond to sickness and injury. Health-promotion activities such as immunization administration, vision and hearing screening, and obesity management may not be areas where these nurses have experience. As many school nurses practice in relative isolation, with little day-to-day contact with colleagues, it is imperative that new school nurses be provided with a network system of support.

Lightfoot and Bines (1998) conducted a study to generate information on the school nurse's role in meeting the health needs of children. Findings revealed four key roles: safeguarding the health and welfare of children, acting as confidante for children and young people, promoting health, and supporting the family. The nurses in the study valued the opportunity to promote healthy lifestyles. Innovative health-promotion experiences within the school were discussed, including a mock sexual health clinic.

The school nurse's role in health promotion for children with chronic illness is widely recognized in the literature. Perry and Toole (2000) conducted a project in

which 17 inner-city children with asthma were enrolled in a case management system, which included input from the primary care provider, school nurse, and the child's family. Results indicated that these parents had increased their knowledge about asthma management and experienced a heightened sense of control over their child's asthma. The researchers advocated for the initiation of case management by school nurses as a health-promotion mechanism.

### **School Nurse as Health Educator**

School nurses carry out the role of educator in many capacities. Teaching may be done by working with individual students, providing classroom instruction, being a member of a curriculum planning committee, sharing resources with classroom teachers, and modeling health-promoting behaviors. Bradley (1997) discussed the traditional components of health programs in schools: education, services, and environment. School nurses are in an ideal position to serve as health educators, working with teachers and other healthcare personnel such as social workers and nutritionists.

The Standards for School Nursing Practice (NASN, 1996) indicate the importance of health education within the realm of school nursing. Proctor et al. (1993) proposed measurement criteria that described a competent level of behavior in the school nurse's role as health educator. Criteria included participation in the assessment of health and health instruction needs for the school community, provision of formal health instruction within the classroom based on sound learning theory, provision of individual health teaching and counseling for and with students, and the conduct of group meetings for students, staff, and parents regarding particular health concerns. The researchers (Proctor et al.) also pointed out the significance of school nurses' participation in the design and development of health curricula using the Healthy People 2000 health objectives as a guide, and promotion of integration of health concepts within the regular school curriculum. The school nurse must further the application of health-promoting principles within all areas of

school life, educate staff regarding student health concerns and their own health, and educate parents regarding student health issues and parenting techniques.

This comprehensive overview by Proctor et al. (1993) may seem overwhelming to some nurses employed in schools. In light of the published nurse-to-student ratios that well exceed recommendations by NASN, many nurses may not have the time necessary to devote to health teaching as described above. However, many of these principles can be accomplished as part of other activities, and health teaching should be a priority. In its statement about the appropriate role of a school nurse in school health instruction, Schneider (1992) recommended that the school nurse assume the role of consultant and resource person, not necessarily directly involved in health education teaching. The recommendation is that school health education programs be managed, taught, and evaluated by properly trained teachers or health educators. This opinion is in conflict with the Standards of School Nursing Practice developed by NASN (1996), and is part of an ongoing debate in the field. Bradley (1997) described health education as a nursing intervention particularly important to students with special health needs, their families, and their teachers. Again, the role of the school nurse as health educator must be encouraged and supported, as this lies in the domain of professional nursing practice.

### **School Nurse as Collaborator**

The literature contains repeated evidence of the need for the school nurse to work in collaboration with teachers, other healthcare providers, and families. In dealing with children with and without chronic illness, nurses must include families in the health plan. Regardless of the nature of the health concern, cooperation and follow-through affect the status of the child's health. The American Academy of Pediatrics (2001) recommended that the school nurse collaborate with primary care physicians, specialists, and local public health and social service agencies to ensure a full spectrum of quality services that sustain children and their families.

## School Nursing: Not Just Band-Aids Any More!

Tustin (1999) identified collaboration with community partners as a way to increase research and funding opportunities for school nursing. The broader knowledge base that results from collaboration would benefit the school nurse researcher. Also, interdisciplinary collaboration would yield data that are better scrutinized because of the variety of analysts with different professional interests and backgrounds examining and evaluating the data (Hootman, 2002).

Bush (1997) addressed a frustrating experience of school nursing that involves identifying children in need of remedial health care caused by parents delaying or ignoring healthcare follow-through. The researcher pointed out the need for collaboration with parents to understand the factors that influence parents' healthcare actions and identify interventions that can increase the likelihood of referral follow-through.

### Role of the School Nurse in Health Policy

With changes in the way health care is provided and funded, school nurses have an obligation to become more active from a health policy standpoint. More is being published about the role of the school nurse in securing funding for health services (Adams & Johnson, 2000; Nash & Marcott, 1999). With the need for expansion of school health services and the provision of school health through innovative means such as school-based health centers, innovative funding mechanisms must be sought. A survey by Heneghan and Malakoff (1997) revealed that most school health services were funded by a combination of public funds (local revenues or state taxes), Medicaid reimbursement, private insurance, and other sources such as in-kind donations and grants. Often, school nurses must seek grants to finance health education programs and school health fairs, a process with which many school nurses have little experience. Advanced practice nurses and university faculty can assist school nurses with this process.

From a health policy perspective, controversy surrounding school health and the roles of school nurses has centered around reproductive issues. The majority of

school-based health centers provide services to adolescents, and reproductive issues evoke much emotion, turmoil, and feelings of violation of parental rights. Gadowski, McLaud, Lewis, and Kjolhede (1998) conducted telephone surveys with parents to elicit community views regarding school-based health centers. Most parents (86%) were in favor of the development of school-based health centers in their communities. The survey yielded strong parental response, however, that reproductive health issues should not be addressed by the centers. This was in contradiction to what adolescent students viewed as important in the provision of services. Galland and Gupta (1999) discussed the political opposition in Louisiana to the implementation of school-based health centers, resulting from the misconception that reproductive health services form the primary agenda of advocates of these centers. It is imperative that school nurses educate the community on the many services provided, stressing the fact that reproductive health constitutes only one aspect of comprehensive school health services.

---

**From a health policy perspective, controversy surrounding school health and the roles of school nurses has centered around reproductive issues.**

---

Ryberg, Keller, Hine, and Christeson (2003) discussed the responsibility of school nurses to ensure that they are visible to education policymakers and the communities in which they practice. To protect the resources allocated to school health services, school nurses must collect data related to health outcomes, evaluate results of outcomes effectiveness research, and present this information as participants in policy development.

## Research and School Nursing

Historically, research has been an area of professional development that has not been fully embraced by school nurses. In 1996, representatives from the American School Association and the National Association of School Nurses met to discuss contemporary research needs in school nursing services and prioritize research topics related to school nursing. One standard of practice published by NASN states, "The school nurse contributes to nursing and school health through innovations in practice and participation in research or research-related activities" (Igoe, 1994b). Those who provide school nursing services are not often involved in research, however, and seldom incorporate research findings into their practice. In a 1996 survey conducted by NASN, school nurses ranked "research skills for school nurses" as the lowest interest among topics for continuing education (NASN, 1997).

Bradley (1998) examined the current research base relative to school nursing. The literature contained studies on school nursing services, nursing interventions and their relation to academic performance, characteristics of the school-age population, and the cost-benefit ratio of school nursing services. Also identified were barriers to school nursing research, which include a lack of standardization (e.g., lack of consistent nomenclature within the setting), as well as generic obstacles found in many areas of pediatric research (e.g., lack of administrative support and difficulty in gaining parental permission). Bradley also cited issues related to specific topics, such as privacy and confidentiality concerning mental health issues, ethical concerns of studying children with learning disabilities, and situations in which the parents consent to the research but the child may not wish to be included. The importance of the researcher following local policy, state law, education codes, and community values of the school system was stressed.

As a result of the NASN and ASHA convening in 1996, research priorities have been derived. These include outcomes produced by school nursing services, school nurse-to-student ratios, budgetary allotments for services and

equipment, minimum competencies for school nurses, competencies related to positive student outcomes, and issues related to nursing data classification. The group recommended research on how school nursing services affect attendance, student achievement, drop-out rates, safety, and school behavior, as well as similarities that exist in expectations of school nursing services from nurses, parents, administrators, and teachers.

Price, Telljohann, and King (1999) conducted a survey of 590 school nurses to examine their perceptions of and experience with school health research. Results indicated that school nurses considered research important in that it contributes to the body of knowledge, benefits the children, and improves the quality of their work; however, barriers such as lack of time, clerical assistance, and funding were identified. The survey revealed that approximately one-third of all school nurses are involved in research, which is higher than the percentage of research-involved health teachers and school personnel. The authors suggested that school nurses collaborate with faculty in academic institutions for research, as faculty members may have more expertise and time to conduct research. As previously stated, academicians may also have the resources available for obtaining grants, thus decreasing funding constraints.

Many commentaries in the literature suggest the need for further research on school nursing outcomes (Lightfoot & Bines, 1998; Maughan, 2003; Ross, 1999; Wainwright, Thomas, & Jones, 2000). There is a dearth of research to evaluate the impact of school nursing intervention. Research is needed to establish measurable criteria and assess the extent to which school health services are being effectively implemented. Fryer and Igoe (1995) surveyed 482 school districts representing 48 of the 50 states to determine their school nurse-to-student ratios. They then compared the ratios for each state with that state's indices of child well-being from a report of Kids Count, a comprehensive measure of child well-being developed by the Annie E. Casey Foundation. A strong association was observed between the rank order of states on the ratio of nurses to students and the well-being of children. Children appeared to be better off in

## School Nursing: Not Just Band-Aids Any More!

states where there was a lower school nurse-to-student ratio. The authors pointed out that although these results are very affirming to school nurses, these were preliminary results in need of further study. Costante (1996) expressed the need for formal and informal research for better documentation of the outcomes of school nursing interventions.

Edwards (2002) published "Research Priorities in School Nursing," developed during a summit of school nursing leaders and nursing researchers in child health. Directions for those conducting research in schools were provided, with priority given to outcomes. Hootman (2002) reaffirmed NASN's commitment to research-based practice. She contended that school nurses must be involved in research so they are not left out of school health services. Standards of care pertaining to research were discussed, specifically the need to be informed about, supportive of, and participative in the conduct and use of research.

Denehy (2003) encouraged school nurse researchers to develop programs of research related to various issues that impact their practice. The current emphasis on testing interventions, as well as determining their effectiveness, was discussed. Denehy also pointed out the need for the development of centers of school nursing research, achieved through external funding sources.

### Advanced Practice School Nurses

Advanced practice nurses in schools may be clinical nurse specialists, school nurse practitioners, pediatric nurse practitioners, or family nurse practitioners. As is often seen in nursing, as with other disciplines, some controversy exists over which role is best suited to the school environment. Igoe (1998) believed that all these advanced practice nurses can contribute significantly to the setting; however, she recommended post-master's training for those not prepared as school nurse practitioners to obtain further assessment content for children with special needs, as well as a greater background in community health and nontraditional settings. Ross

(1999) addressed the role of the clinical nurse specialist in school health and felt it unrealistic to expect baccalaureate graduates to be effective school nurses given the generalist nature of their educational programs coupled with the wide array of expectations.

The contributions of all advanced practice nurses in policy shaping, research, and consultation are crucial for the advancement of school nursing. Approximately 7% of all school nurses are prepared at the master's level (Igoe, 1994a). There are currently 48 higher education institutions that offer school nurse advanced degrees and certifications ([www.usinternet.com/users/bergren/schools.htm](http://www.usinternet.com/users/bergren/schools.htm)). As more school nurses pursue advanced degrees, the specialization of school nursing will gain recognition and respect.

### How Do I Apply This Information to Nursing Practice?

Changes in societal characteristics, economic shortfalls, legislative mandates, and new morbidities have presented school nurses with many challenges in the past decade, resulting in an expansion of the role of the school nurse. School nurses function as health promoter, health educator, collaborator, policy developer, and consumer of research. The role of the advanced practice school nurse is expanding to meet the complex needs of those children who are medically underserved. The autonomy of the role, along with the opportunity to work in collaboration with professionals from various backgrounds, provides opportunities and challenges for school nurses. By becoming active in policy development and providing evidence-based practice, school nurses will be in a position to promote the health of the children that they serve, enhancing their ability to learn.

Author contact: [lab4456@louisiana.edu](mailto:lab4456@louisiana.edu), with a copy to the Editor: [roxie.foster@uchsc.edu](mailto:roxie.foster@uchsc.edu)

### References

Adams, K., & Johnson, V. (2000). An elementary school based health clinic: Can it reduce Medicaid costs? *Pediatrics*, 105, 780-788.

- American Academy of Pediatrics. (2001). The role of the school nurse in providing school health services. *Pediatrics*, 108, 1231–1232.
- Bradley, B. (1997). The school nurse as health educator. *Journal of School Health*, 67, 3–8.
- Bradley, B. (1998). Establishing a research agenda for school nursing. *Journal of School Health*, 68, 53–61.
- Bush, M. (1997). Influence of health locus of control and parental health perceptions on follow through with school nurse referrals. *Issues in Comprehensive Pediatric Nursing*, 20, 175–182.
- Costante, C. (1996). Supporting school success: School nurses make a difference. *Journal of School Nursing*, 12, 4–6.
- Davies, L.D., & Murray, M.A. (1997). *Results of the 1996 survey of the National Association of School Nurses*. New York: Merck & Co.
- Dworak, E. (2001). Ten commandments for the school nurse. *Journal of School Health*, 71, 392.
- Denehy, J. (2003). Developing a program of research in school nursing. *Journal of School Nursing*, 19, 125–126.
- Edwards, L.H. (2002). Research priorities in school nursing: A Delphi process. *Journal of School Nursing*, 18, 157–162.
- Foch, B.J. (1995). School-based health centers: A review. *International Pediatrics*, 10, 286–291.
- Fryer, G.E., & Igoe, J.B. (1995). A relationship between availability of school nurses and child well-being. *Journal of School Nursing*, 1, 12–18.
- Gadomski, A., McLaud, B., Lewis, C., & Kjolhede, C. (1998). Assessing rural community viewpoints to implement a school-based health center. *Journal of School Health*, 68, 304–306.
- Galland, H., & Gupta, V. (1999). School based health centers in Louisiana: An introduction. *Journal of Louisiana Medical Society*, 151, 609–614.
- Harvey, G.M. (1998). Making the transition from acute care to school nurse. *Journal of School Nursing*, 14, 40–46.
- Harvey, G. (2003). School nursing: An interdisciplinary specialty turns 100 years. *Nursing News*, 27, 1, 4.
- Heneghan, A., & Malakoff, M. (1997). Availability of school health services for young children. *Journal of School Health*, 67, 327–332.
- Hootman, J. (2002). The importance of research to school nurses and school nursing practice. *Journal of School Nursing*, 18, 18–24.
- Igoe, J.B. (1994a). *A closer look: A preliminary report of findings from the National Survey of School Nurses and School Nurse Supervisors*. Denver: University of Colorado Health Sciences Center.
- Igoe, J.B. (1994b). School nursing. *Nursing Clinics of North America*, 29, 443–458.
- Igoe, J. (1998). Preparation of school nurse practitioners. *Journal of School Health*, 68, 179–183.
- Lightfoot, J., & Bines, W. (1998). Keeping children healthy: The role of the school nurse. *Nursing Times*, 94(21), 65–68.
- Lowe, J., & Miller, W. (1998). A 1996 NASN research award winner: Health services provided by school nurses for students with chronic health problems. *Journal of School Nursing*, 14(5), 4–16.
- Maughan, E. (2003). The impact of school nursing on school performance: A research synthesis. *Journal of School Nursing*, 19, 163–171.
- Nash, K., & Marcott, R.T. (1999). Funding a school-based health center. *Nurse Practitioner*, 24, 142–143.
- National Association of School Nurses. (1996). *Professional school nurse roles and responsibilities: Education, certification, and licensure*. Retrieved January 27, 2002, from <http://www.nasn.org/positions/roles.htm>
- National Association of School Nurses. (1997). *National Association of School Nurses survey*. Scarborough, ME: Author.
- Perry, C., & Toole, K. (2000). Impact of school nurse case management on asthma control in school aged children. *Journal of School Health*, 70, 303–304.
- Pollitt, P. (1994). Lina Rogers Struthers: The first school nurse. *Journal of School Nursing*, 10, 34–36.
- Price, J., Telljohann, S., & King, K. (1999). School nurses' perceptions of and experience with school health research. *Journal of School Health*, 69, 58–62.
- Proctor, S.T., Lordi, S.L., & Zaiger, D.S. (1993). *School nursing practice: Roles and standards*. Scarborough, ME: National Association for School Nurses.
- Ross, S. (1999). The clinical nurse specialist's role in school health. *Clinical Nurse Specialist*, 13(1), 28–33.
- Ryberg, J.W., Keller, T., Hine, B., & Christeson, E. (2003). Data speak: Influencing school health policy through research. *Journal of School Nursing*, 19, 17–22.
- Schlitt, J., Rickett, K., Montgomery, L., & Lear, L. (1995). State initiatives to support school-based centers: A national survey. *Journal of Adolescent Health*, 17, 68–76.
- Schneider, L. (1992). *Implementation guide for the standards of school nursing practice*. Kent, OH: American School Health Association.
- Small, M.L., Maier, L.S., Allensworth, D.D., Farquhar, B.K., & Kann, L. (1995). School health services. *Journal of School Nursing*, 65, 319–326.
- Turnbull, H.R., Turnbull, A.P., Wehmeyer, M.L., & Park, J. (2003). A quality of life framework for special education outcomes. *Remedial and Special Education*, 24(2), 67–75.
- Tustin, J. (1999). Building bridges. *Journal of School Nursing*, 15 (3), 6–7.
- Wainwright, P., Thomas, J., & Jones, M. (2000). Health promotion and the role of the school nurse: A systematic review. *Journal of Advanced Nursing*, 32, 1083–1091.



ISSN: 1545-102X

AVAILABLE  
ONLINE!

## WORLDVIEWS ON EVIDENCE-BASED NURSING

*Editor:* JO RYCROFT-MALONE  
*RN, PhD, Royal College of Nursing Institute*

*Associate Editors:* TRACEY BUCKNALL  
*RN, PhD, The University of Melbourne*

BERNADETTE MAZUREK MELNYK  
*PhD, CPNP, NPP, FAAN, University of Rochester School  
of Nursing*

The leading nursing society that has brought you the *Journal of Nursing Scholarship* is now pleased to introduce its new journal – **WORLDVIEWS ON EVIDENCE-BASED NURSING**. This journal is a quarterly, peer-reviewed journal and information resource from the *Honor Society of Nursing, Sigma Theta Tau International* and *Blackwell Publishing*. The journal uniquely bridges knowledge and application taking a global approach in its presentation of research, policy and practice, education, and management.

Editor Jo Rycroft-Malone, together with a committed team of associate editors and an international editorial board, represent the global leaders in evidence-based nursing. This distinguished team will ensure that articles published provide the most current and comprehensive knowledge synthesis, research, and best evidence available, including specific recommendations that support nursing practice around the world.

To submit your material for publication in **WORLDVIEWS ON EVIDENCE-BASED NURSING**, visit [www.blackwellpublishing.com/wvn](http://www.blackwellpublishing.com/wvn) and follow the Author Guidelines link.

The Honor Society of Nursing, Sigma Theta Tau International, provides leadership and scholarship in practice, education, and research to enhance the health of all people. They support the learning and professional development of their members, who strive to improve nursing care worldwide.

A subscription is just one benefit of membership in Sigma Theta Tau International. Society members receive a special reduced subscription rate for *Worldviews on Evidence-Based Nursing*

Please visit the society at [www.nursingsociety.org](http://www.nursingsociety.org) for details.

**Blackwell  
Synergy** 

**WORLDVIEWS ON EVIDENCE-BASED NURSING  
IS ONLINE AT BLACKWELL SYNERGY!  
[WWW.BLACKWELL-SYNERGY.COM](http://WWW.BLACKWELL-SYNERGY.COM)**

Sign up to receive Blackwell Synergy free e-mail alerts with complete tables of contents and quick links to article abstracts from the most current issue. Simply go to [www.blackwell-synergy.com](http://www.blackwell-synergy.com), select the journal from the list of journals, and click on "Sign-up" for FREE email table of contents alerts.

 **Blackwell  
Publishing**

Call **1-800-835-6770** (toll free in N. America)  
or: +1 781-388-8206 (US Office); +44 1865 778315 (UK office)  
**subscrip@bos.blackwellpublishing.com**  
**[www.blackwellpublishing.com](http://www.blackwellpublishing.com)**

Find more information at  
**[www.blackwellpublishing.com/wvn](http://www.blackwellpublishing.com/wvn)**